PHOTOSHOP® FiX

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MAY 2004

HOT SHOT

COOL TRICK

CONVERT COLOR PIX TO BLACK-AND-WHITE FINE ART

ESSENTIALS:
FROM SUNRISE TO SUNSET IN TWO STEPS

TOOLS:
IMAGE, HEAL THYSELF

TECHNIQUES:
GO WITH THE FLOW

STUDIO:
KATRIN EISMANN BATTLES A DIFFICULT EXPOSURE AND WINS

EXPERT TIPS:
CHECK OUT THOSE CURVES!

TURN THE HEAT UP!

To place Ron Chapple's black-and-white photo in the line of fire, Thinkstock digital artist Shelly Greer added color using Variations and Levels. But what really makes this composite hot is the technique applied to the goggles.

1 Greer isolated the man in the photo from its background by tracing with the lasso tool, pressing Shift-Option-I (Invert), then Delete. She placed a fire image on a layer behind the man.

2 To match the fire color, Greer selected the man, chose Image > Adjustments > Variations, and manipulated the contrasts. She selected Shadows and added more blue and magenta, clicking the Lighter option once. Then she cooled the Highlights with more yellow and green, and two clicks on Darker. She added red and yellow to the Midtones.

3 Greer wanted to intensify the impression of fire reflecting on the man's face. Choosing Levels, she moved the end sliders inward in the Histogram for an almost posterized effect. Then she moved the midtone slider to the left to globally lighten the image.

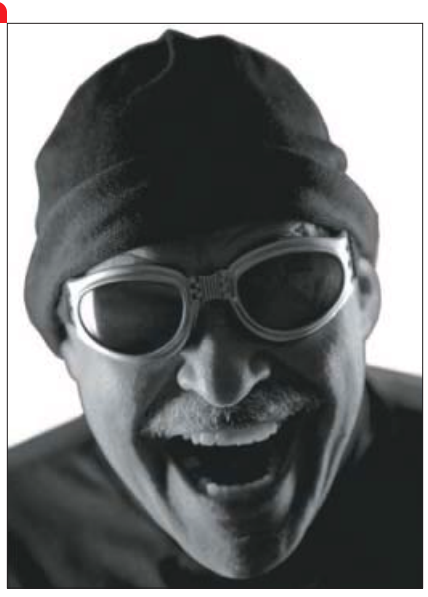
4 To further surround the man with fire, Greer added a reflection to each lens of the goggles. To do this, she duplicated the fire image layer and reduced the layer opacity to see the man beneath. Using Edit > Transform > Scale, she reduced the fire proportionally over one of the lens. Greer lassoed the lens and pressed Command-J to jump the selection to a new layer. She adjusted the layer opacity to 70% to bring the man's highlights forward, then repeated the steps for the other lens.

5 Greer contoured the fire to the shape of the goggles with the Spherize filter. After Command-clicking a lens layer, she chose Filter > Distort > Spherize and set the Amount to 20%.

Ron Chapple
Shelly Greer
Thinkstock LLC
704.716.9372

IMAGE: B0012501/THINKSTOCK/RON CHAPPLE/CREATAS.COM

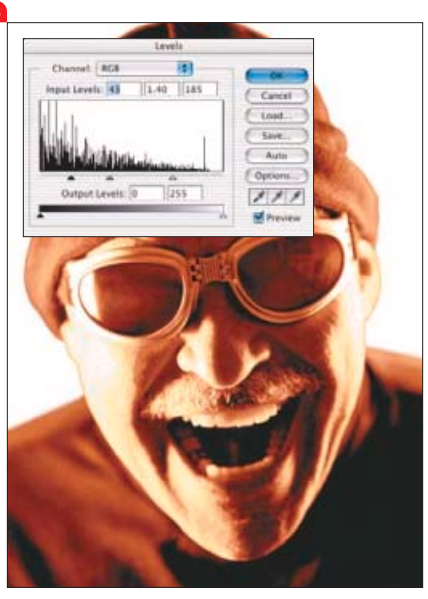
1



2

Variations
Shadows
Midtones
Highlights
Saturation
Fine
Coarse
Show Clipping
OK
Cancel
Load...
Save...
Original
Current Pick
More Green
More Yellow
Lighter
More Cyan
More Red
More Blue
More Magenta
Darker

3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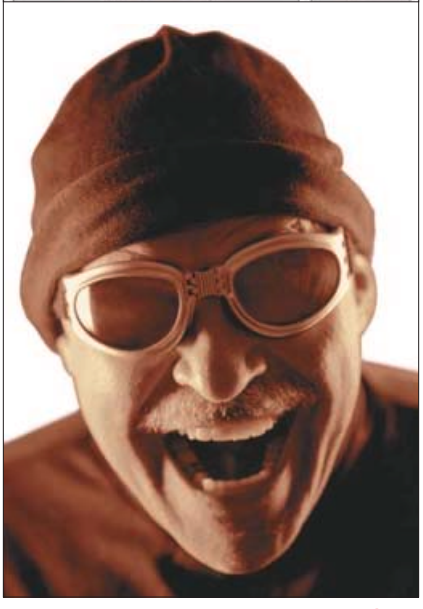
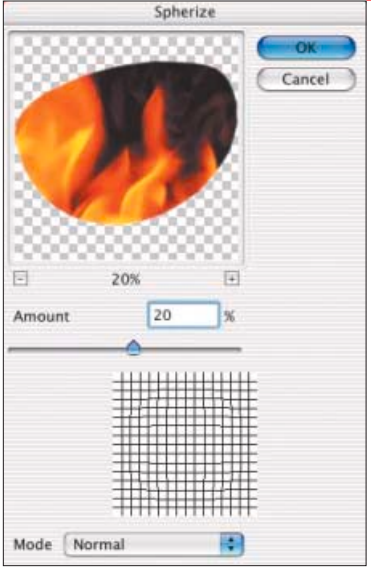
Channel: RGB
Input Levels: 43 1.40 185
Output Levels: 0 255
OK
Cancel
Load...
Save...
Auto
Options...
Preview



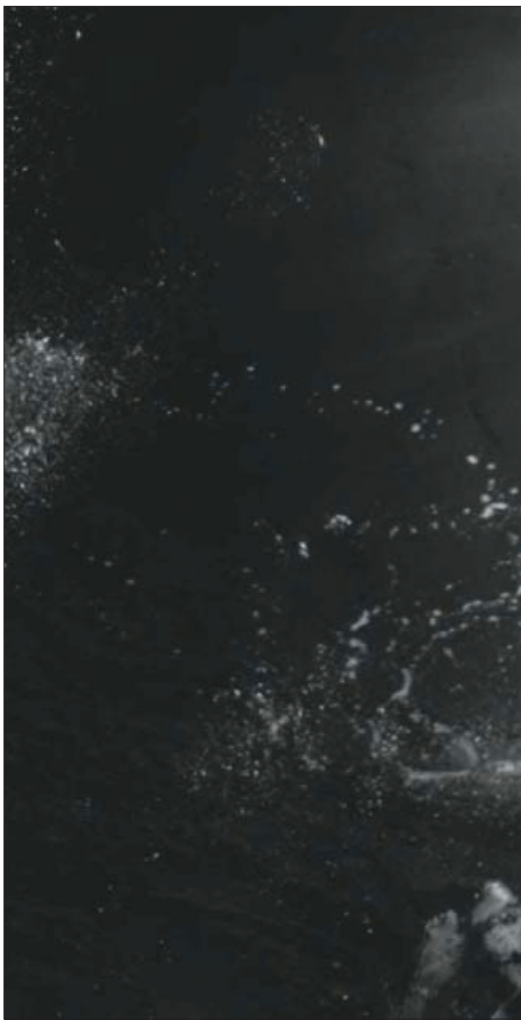
4

5


Spherize
OK
Cancel
20%
Amount
20
%
Mode
Normal

EXPLORE THE DARK AND DEEP

After a photographic expedition in Honduras, photographer Howard Pyle transformed a color shot of a surfacing turtle into black-and-white fine art by mixing layers, blending channels, and simulating film types.



1 For a sense of distortion similar to infrared film, Pyle duplicated the image layer, applied a slight Gaussian Blur, and set the blending mode to Screen at 5% Opacity. Using Screen allowed him to manipulate the distortion through Opacity at any time instead of applying additional blurs.

2 Pyle added a Channel Mixer adjustment layer and checked Monochrome in the dialog box to mix the color channels into the Gray Output Channel and display the image as Grayscale. He increased the Red and Green Source Channels, decreased the Blue, and used the Constant slider to lighten or darken the overall adjustment. This affected tone and texture in the way black-and-white filters would for traditional black-and-white film.

3 Pyle enriched tonality by adding a Selective Color layer below the Channel Mixer layer. In the dialog box, he chose Yellows from the pull-down menu and reduced the Magenta and Black values. He increased the values in the Cyans and decreased the Greens slightly—like a blue filter effecting tonality on a black-and-white film negative. For deeper contrast, he chose the Blacks and set the color values to +1 and Black to +2.

4 Pyle added a Levels adjustment layer above all other layers. He moved the white slider to where the Histogram started on the right, then set the Output Levels to 0 and 250 to make white areas printable.

Working with thousands of images, Pyle saves adjustment time by making Actions. He created one to open a file with a duplicate layer set to Screen with a Gaussian Blur. It then added three adjustment layers ready to be tweaked individually.

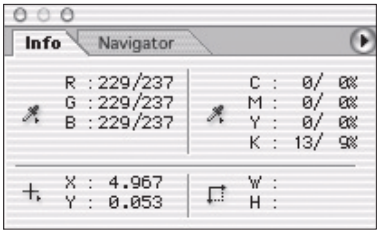
WATCHING THE NUMBERS

Digital cameras can limit photographers who want to overexpose—light areas end up too light with no data (unlike film where highlights can be salvaged easier).

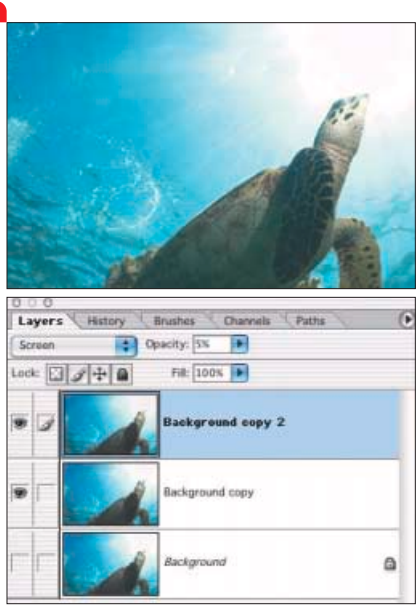
For an overexposed digital image, open the Info palette, roll over the image's light points, and check your RGB channels. Pure or "blown out" white appears as 255 in all channels. It's best not to have highlights over 250 in more than one channel or images may print with unpredictable results. Similarly, dark values shouldn't be less than 3 in each RGB channel.

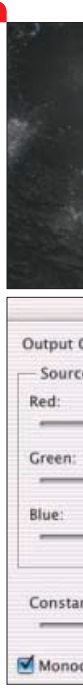
A simple way to correct this problem is to add a Levels adjustment layer and set the Output levels to 3 and 250. Pyle's Levels adjustment layer restored data in the sunlit upper right corner.

Watch the numbers in the Info palette as you make adjustments to an image. For example, say you increased the black point in Levels. Without closing the Levels dialog box, open the Info palette and roll over the image's dark points. The Info palette's channels will show two numbers. The first is the original value; the second is the new value based on your changes.



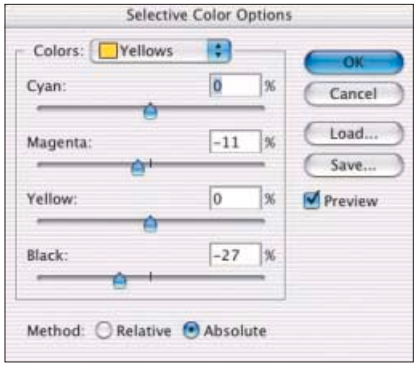
Howard Pyle IV
howard@processlab.com
www.processlab.com



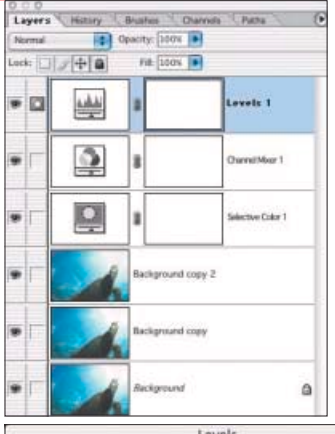


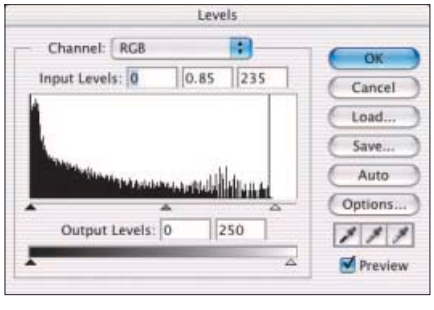
3

Channel Mixer
Channel: Gray
OK
Cancel
Load...
Save...
Preview
+82 %
+57 %
-38 %
-11 %


Selective Color Options
Colors: Yellows
OK
Cancel
Load...
Save...
Preview
Cyan: 0 %
Magenta: -11 %
Yellow: 0 %
Black: -27 %
Method: Relative Absolute

4


Layers
History
Brushes
Channels
Paths
Normal
Opacity:
Lock:
Fill:
Levels 1
Channel Mixer 1
Selective Color 1
Background copy 2
Background copy
Background


Levels
Channel: RGB
Input Levels: 0 0.85 235
Output Levels: 0 250
OK
Cancel
Load...
Save...
Auto
Options...
Preview

BY RICH HARRIS

SHARE ONE COLOR SPECTRUM

Photoshop CS's new Match Color adjustment is a powerful tool for matching colors between two images, whether you're aiming to maintain a consistent look in a series of shots or, as in this tutorial, transforming a photo of the shoreline at mid-morning into an image of the same beach at sunset.

DOWNLOAD THE "OCEAN VIEW" AND "SUNSET AT BEACH" IMAGES FROM WWW.PHOTOSHOPFIX.COM, MAY 2004 ISSUE.

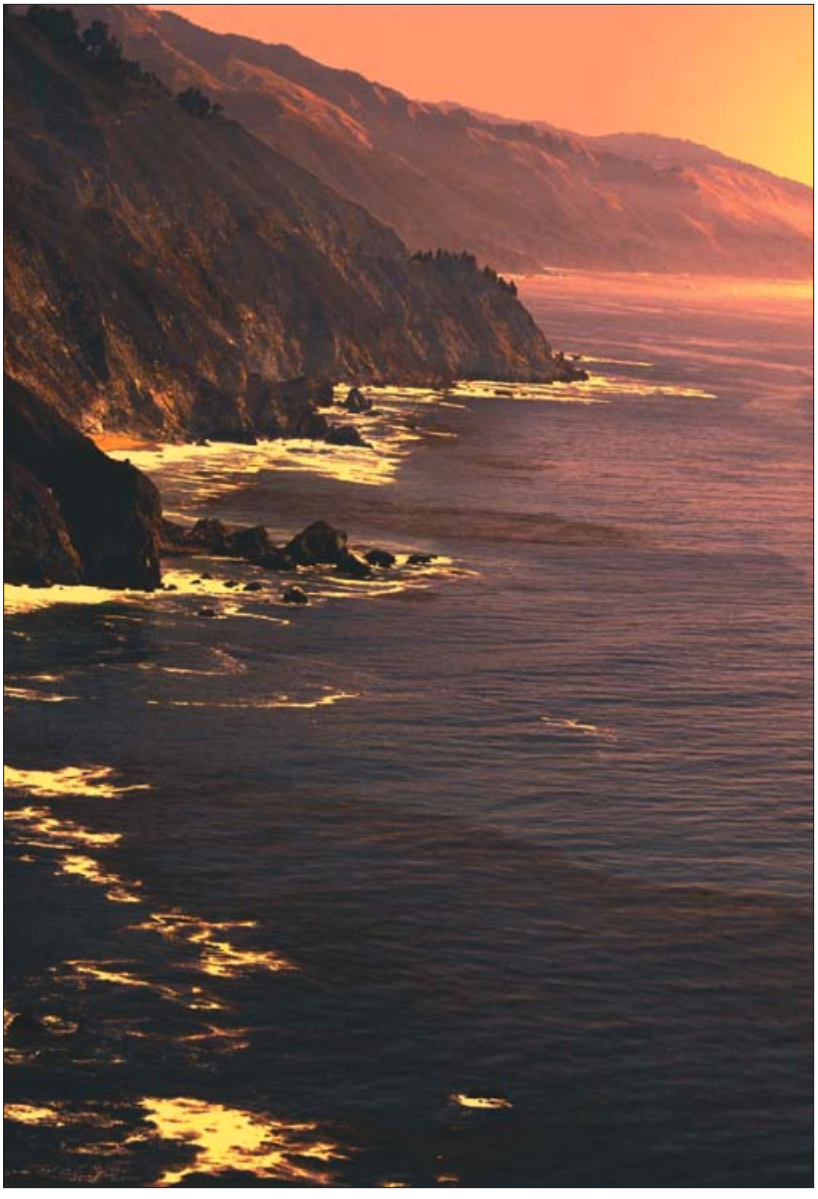
1 Open the "Ocean View" and "Sunset at Beach" images. To use Match Color, make certain both images are in RGB mode. Duplicate the Ocean View image (Command/Ctrl-J) and name the new layer "Sunset."

2 Choose Image > Adjustments > Match Color... and select Sunset at Beach from the Source pull-down menu. Match Color reads the color statistics from Sunset at Beach and applies them to Ocean View.

Then adjust the dialog box settings to fine-tune the image: Luminance adjusts the overall brightness; Color Intensity saturates or desaturates color; Fade does just what it says—it fades the amount of adjustment. (Image 2 displays the settings for this tutorial.) Checking the Neutralize box would give this image a washed-out look, so ignore it. Voilà! Instant sunset!

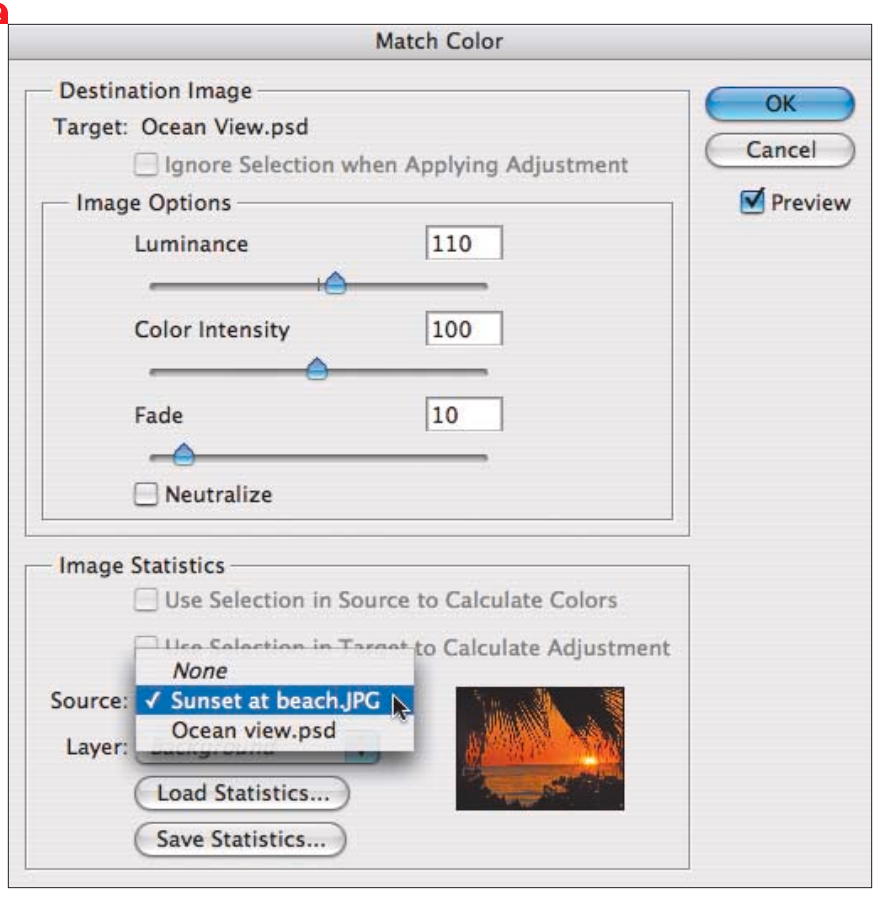
If you need to match a number of similar images (such as matching a model's skin tones across an entire photo shoot), click Save Statistics when you have a good match. Then use Load Statistics for the additional images to match the original.

Match Color works best if you're willing to experiment. Along the way to getting the perfect sunset, I tried several images. The first sunset (opposite page, top) was too intense in the red spectrum while the second one gave the ocean a neon-blue look. The third image was close to what I was looking for but was a little too orange in the far hills and the water.



Rich Harris served as Creative Director of Wacom Technology, and has more than 20 years of experience in digital design, digital illustration, and prepress. He writes on software solutions for national publications as well as teaches classes in Photoshop. Contact him at harrisrich@comcast.net.

Layers
Normal
Opacity: 100%
Lock:
Fill: 100%
Sunset
Background


Match Color
Destination Image
Target: Ocean View.psd
Ignore Selection when Applying Adjustment
Image Options
Luminance
110
Color Intensity
100
Fade
10
Neutralize
OK
Cancel
Preview
Image Statistics
Use Selection in Source to Calculate Colors
to Calculate Adjustment
None
Sunset at beach.JPG
Ocean view.psd
Source:
Layer:
Load Statistics...
Save Statistics...

BY ROGER HUNSICKER

MAKE HEALING A PATTERN

While the old standby clone stamp tool still has its place in the toolbox, the supercharged healing brush taps into serious processing power when cloning pixels. It wipes out wrinkles, blemishes, scratches, and aberrant color pixels in one swipe. But what if your image doesn't have a good area to clone from? Set the healing brush to use a pattern as its source!

DOWNLOAD THE "MAN WITH SUNGLASSES" IMAGE FROM WWW.PHOTOSHOPFIX.COM, MAY 2004 ISSUE.

The left half of my subject's face is pockmarked with bumps, divots, and dark spots, all in extraordinarily sharp focus. I wanted to keep this sharpness but remove the blemishes. The ideal tool for this is the healing brush, which grabs texture information from source pixels and blends it with color from a target area. But I couldn't find a good region of the face with a similar texture for me to sample. The Pattern Maker filter, introduced in Photoshop 7, can turn even a small rectangular selection into a seamless pattern for the healing brush's source.

1 Find a small area of your image that has fewer blemishes. I chose a section beside the nose. Zoom in and use a small healing brush (6-pixel for me) set to Sample. Work directly on the art layer if you're using Photoshop CS. Clean up the tiny area, select it with the marquee tool, and choose Filter > Pattern Maker.

2 Pattern Maker previews the entire image with the selection still live (even though the ants no longer march). Note the magnification level at the bottom corner of the dialog box and zoom in (Command-Space-click) until you reach 100%. Enter the selection's dimensions (displayed at the bottom of the preview screen) into the tile Width and Height variables. Set the Smoothness to 3 for smoother seams and click Generate to fill the preview screen with the tiled pattern.

3 After increasing the Smoothness, the tile's content softened, so I increased the Sample Detail to 11 to retain more of my selection's original content, then clicked Generate Again. Each time you click Generate Again, Pattern Maker randomly generates a new pattern and stores the previous version for review in its Tile History (up to 20). When you've found a pattern you like, click the Save Preset Pattern file icon at the bottom of the thumbnail viewer.

4 Select the healing brush and set it to Pattern mode from the menu bar. Choose your new pattern from the library of textures, then brush with short strokes to repair the blemishes.

» Photoshop CS users: Add a layer above the image layer and click Use All Layers in the menu bar. Then reduce the opacity of the healing brush layer to make some of the original artwork smoothly blend back into the retouch layer. Setting the Opacity around 75% conceals any repeating pattern that might be visible.

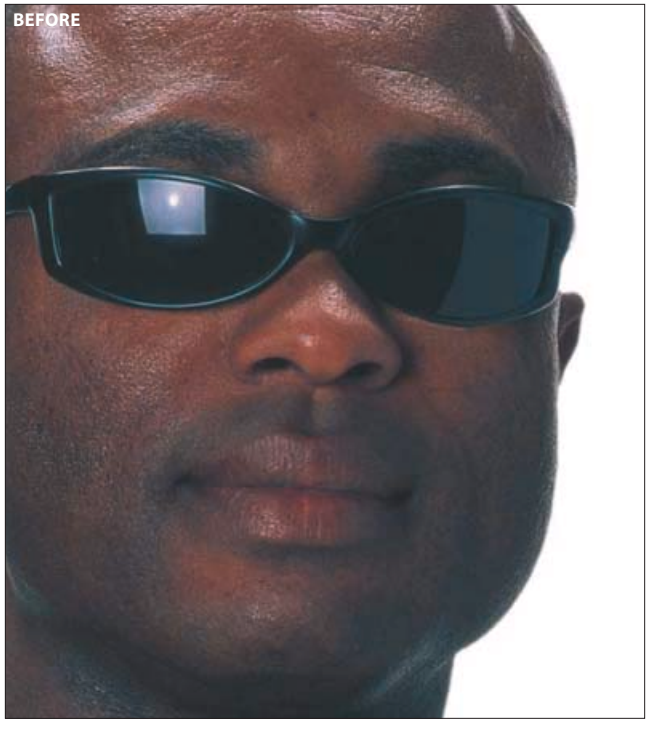
» The healing brush is processor-intensive, so if you don't have tons of RAM, reduce the number of saved History States to 10 in the General Preferences settings. If you get in the habit of taking snapshots regularly, the number of History States you track becomes less important.

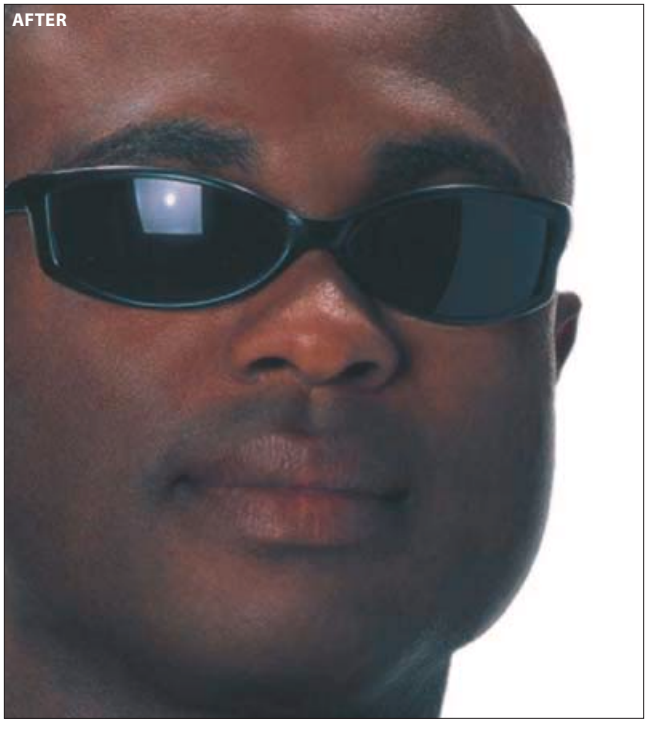
BRUSH UP ON THE HEALING BRUSH

a. Set your brush preference to view at actual brush size in the General Preferences settings. Select the healing brush; it's the bandage icon just below the crop tool. Remember, the healing brush grabs color information 10 to 12 pixels outside the brush edge, so choose a size that won't capture unwanted color. Check Aligned in the menu bar.

b. Zoom in and work in small strokes, cleaning up one area at a time. You'll notice after setting the target point (Option-click), your brush behaves exactly like the clone stamp tool until releasing the mouse. Then Photoshop takes a moment to perform its calculations before generating the actual stroke. If surprise colors, unwanted shadows, or bright spots appear, decrease the brush size and make smaller strokes.

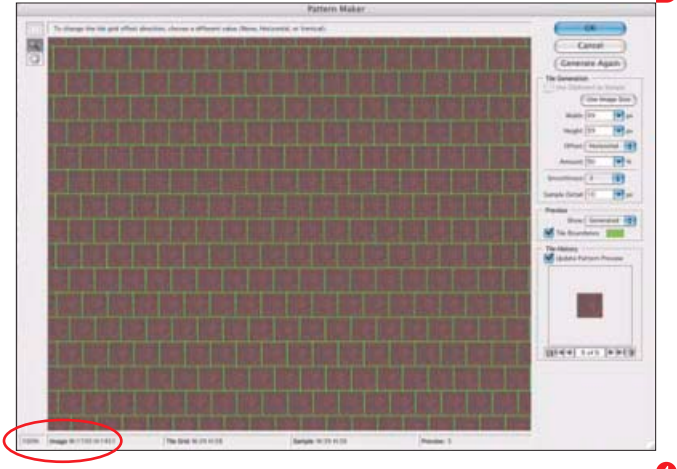
Roger Hunsicker is Advertising Coordinator for Caterpillar, Inc., in Peoria, Ill., and president of Proof Positive Design Group, a web hosting and web design firm.


BEFORE

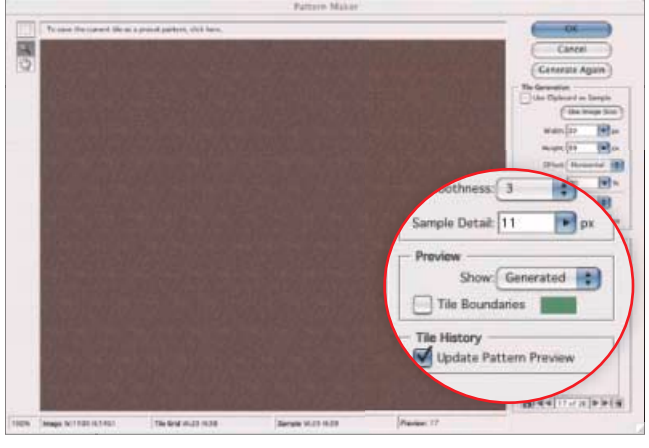

AFTER

1

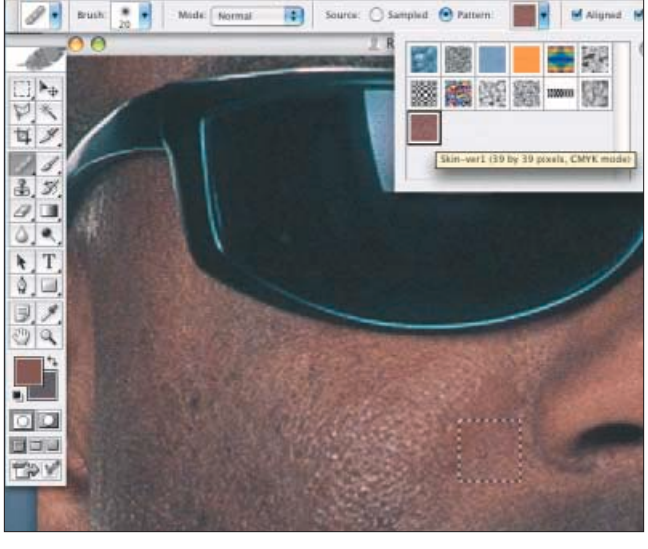
2


Pattern Maker
OK
Cancel
Generate Again

3


Pattern Maker
OK
Cancel
Generate Again
Sample Detail: 11 px
Preview
Show: Generated
Tile Boundaries
Tile History
Update Pattern Preview

4


Brush:
Mode: Normal
Source: Sampled Pattern:
Aligned

BY STEVE HOLMES

IMMERSE IDEAS INTO YOUR IMAGES

It takes some ingenuity to smoothly blend text into an image without obscuring its appearance or losing the message. In this case, the cool Liquify filter and a layer blending trick integrates text nicely with ripples in a swimming pool.

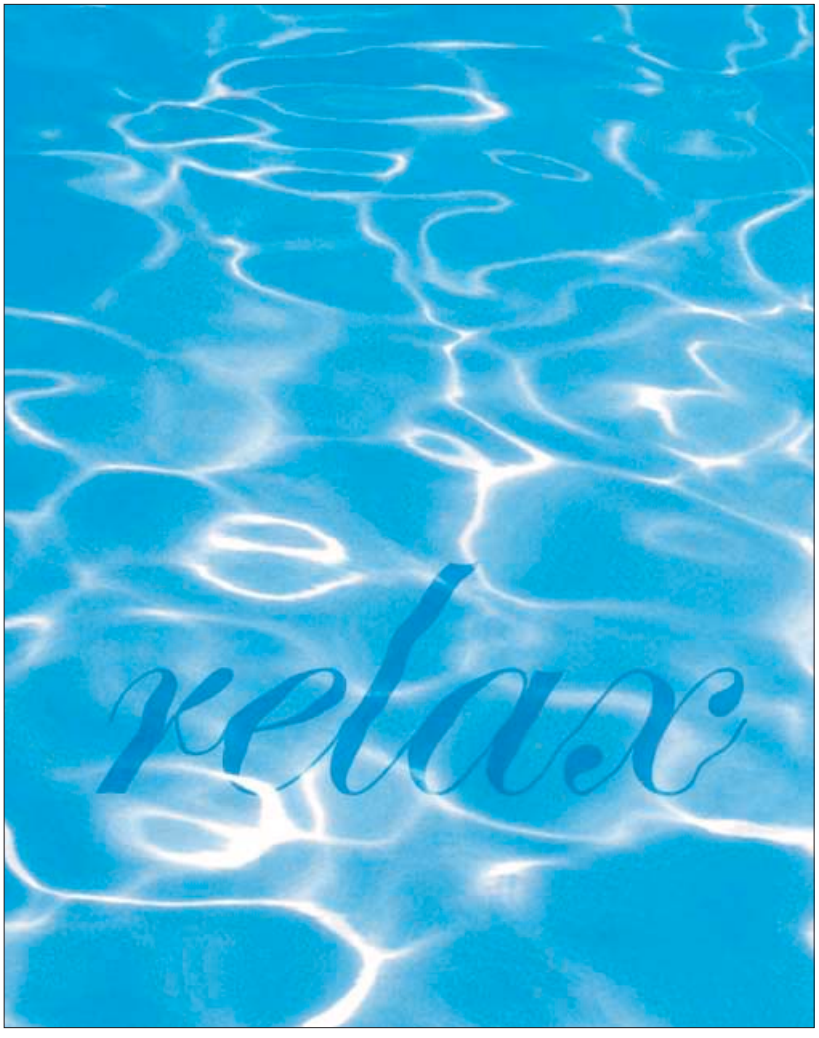
DOWNLOAD THE "RIPPLING WATER" IMAGE FROM WWW.PHOTOSHOPFIX.COM, MAY 2004 ISSUE.

1. Create text, then duplicate the layer (Command-J). Turn off the visibility of the duplicate, reselect the original, and choose Filter > Liquify (Shift-Command-X for Mac or Shift-Ctrl-X for PC). Accept the rasterization warning—see why you made a copy! Check Backdrop and choose the text layer.

2. Select the freeze tool and set the Brush Size. I chose 60 pixels with a Brush Pressure of 1% for softer edges. (Photoshop CS users: Check Show Mask in View Options and set the Density.) Paint over the text areas you want untouched by the filter. Freezing shadow areas wouldn't provide much variation, so I chose to freeze at the water's highlights to blend text where water "moved." To erase a mask, press Option (Mac) or Alt (PC) and paint again.

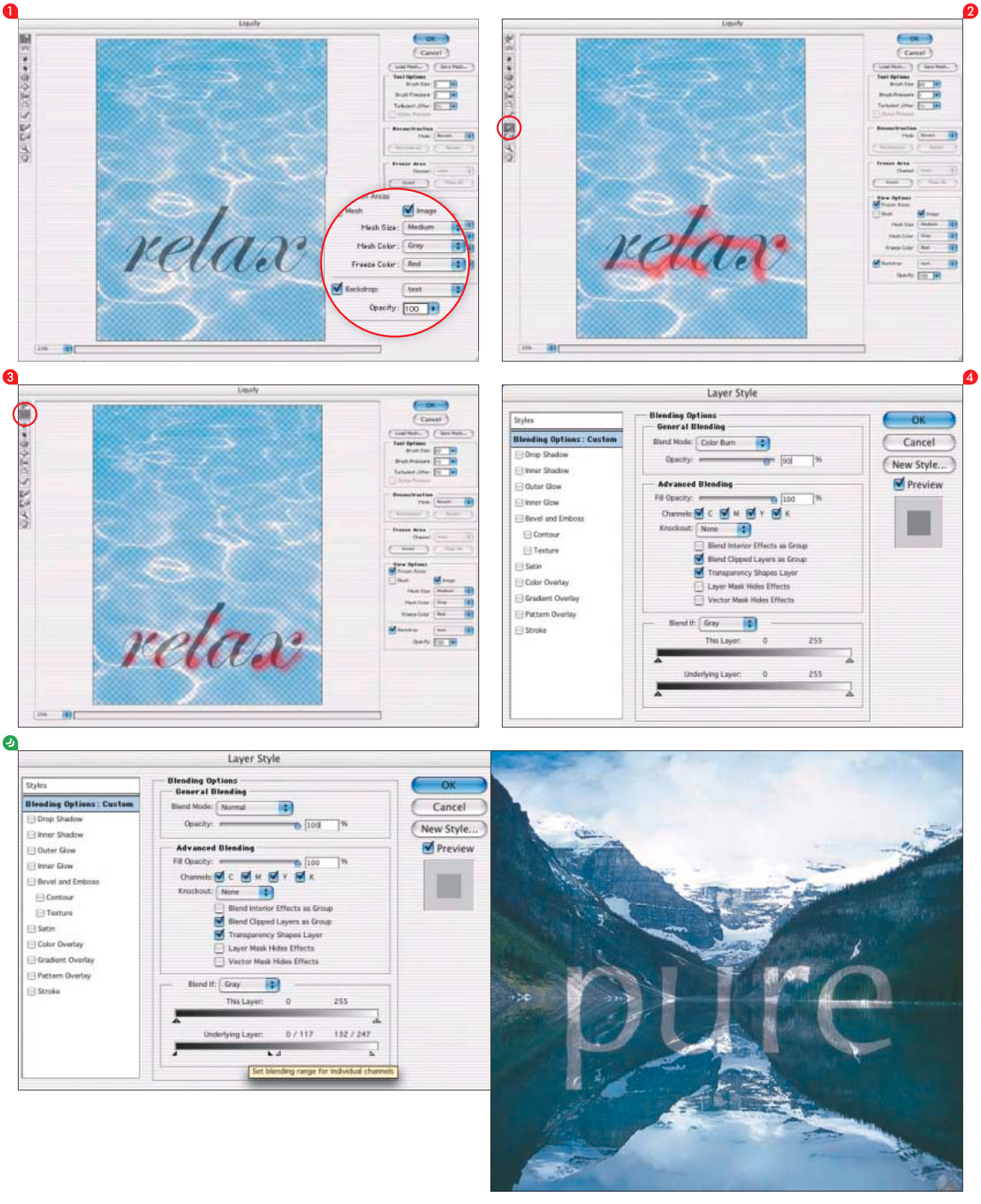
3. Select the turbulence tool and paint over the text, distorting it to match your image. Vary the brush size for smaller or larger distortions. If you're not happy with the results, use the reconstruct tool to paint back to the original or the twirl tool to fine-tune the distortion. Instead of the smudged, feathered text you might get using other tools, your result is a beautiful distortion that works.

4. To further blend the text with the image, double-click the text layer to open the Layer Style Blending Options. Change the Blend Mode to Color Burn and adjust the Fill Opacity—I chose 90%. This burned the water's highlights so the text appeared to float in the pool.



» What if your image is dark or shadowy with light text? After applying Liquify, double-click the text layer. In the Layer Style dialog box, drag the black Underlying Layer triangle until the image's darker pixels begin to show through the text. Press Option (or Alt) and drag to split the triangle. This softens the transition between light and dark masked pixels.

Brit designer "Scuba" Steve Holmes is Director of Art, Design, and Animation Training at Total Training and host of many of their instructional videos. He's also a regular columnist for *SBS Digital Design* and other publications. Contact him at steve@totaltraining.com.


1
Liquify
relax
Mesh Size: Medium
Mesh Color: Gray
Freeze Color: Red
Backdrop: Text
Opacity: 100
2
Liquify
relax
3
Liquify
relax
4
Layer Style
Styles
Blending Options: Custom
Drop Shadow
Inner Shadow
Outer Glow
Inner Glow
Bevel and Emboss
Contour
Texture
Satin
Color Overlay
Gradient Overlay
Pattern Overlay
Stroke
Blending Options
General Blending
Blend Mode: Color Burn
Opacity: 90 %
Advanced Blending
Fill Opacity: 100 %
Channels: C M Y K
Knockout: None
Blend Interior Effects as Group
Blend Clipped Layers as Group
Transparency Shapes Layer
Layer Mask Hides Effects
Vector Mask Hides Effects
Blend If: Gray
This Layer: 0 255
Underlying Layer: 0 255
OK
Cancel
New Style...
Preview
5
Layer Style
Styles
Blending Options: Custom
Drop Shadow
Inner Shadow
Outer Glow
Inner Glow
Bevel and Emboss
Contour
Texture
Satin
Color Overlay
Gradient Overlay
Pattern Overlay
Stroke
Blending Options
General Blending
Blend Mode: Normal
Opacity: 100 %
Advanced Blending
Fill Opacity: 100 %
Channels: C M Y K
Knockout: None
Blend Interior Effects as Group
Blend Clipped Layers as Group
Transparency Shapes Layer
Layer Mask Hides Effects
Vector Mask Hides Effects
Blend If: Gray
This Layer: 0 255
Underlying Layer: 0 / 117 132 / 247
Set blending range for individual channels
OK
Cancel
New Style...
Preview
pure

BY KATRIN EISMANN

NEED TO CORRECT EXPOSURES QUICKLY?

When it came time to adjust this photo of a gravity-defying biker, the contrast between highlight and shadow information made it difficult to improve exposure. After trying Levels and Curves with little success, the new Shadow/Highlight feature in CS revealed shadow detail and enhanced highlights the best—and the fastest!

1 To improve the exposure of my image, I tried adjusting the Levels first. Although Levels is a great tool to correct exposure problems, it's not very useful for contrast problems. In my case, moving the shadow point to the right made the shadows look better, but when I adjusted the highlight slider, the lighter areas of the sky just looked pale, washed out, and too flat.

2 I then experimented with Curves. In this case, I could lighten the image, but at the cost of the shadow information. I tried to be extreme with the midtones, and though the overall exposure improved, the shadow areas (like the biker's pants) were completely black and silhouetted. They blocked up to pure black, which wouldn't reproduce with any detail at all.

3 To salvage the image, I needed a correction tool that would fix the shadows *and* the highlights at the same time, so I tried Shadow/Highlight in Photoshop CS (Image > Adjustments > Shadow/Highlight). Unlike Levels and Curves, Shadow/Highlight is not an adjustment layer, so I duplicated the background layer first. In most cases, you can achieve the results you want by adjusting the Amount, but I needed more control over saturation and contrast, so I checked Show More Options and experimented.

» **Amount:** Increasing the amount for Shadows lightens dark areas; Highlights darkens lighter areas. Shadow/Highlight uses image intelligence to analyze and differentiate adjacent pixels, which is how I darkened the sky without making the biker's white T-shirt muddy and opened up the shadows without washing out the black jeans.

» **Tonal Width:** This helps balance the correction and avoid halos that add an undesired glow around dark subjects. I used a value around 60 in Shadows and Highlights. Lower values restrict adjustments to darker or lighter regions. Higher values include more tonal regions and midtones in the correction.

» **Radius:** Similar to the controls in the Unsharp Mask filter, Radius controls the width area around each pixel that is used to determine whether an image area is a shadow or highlight. I set the Radius by looking at the image and eyeballing the percentages. The biker (shadow) is approximately 30% of the image, and the sky (highlight) is approximately 70%.

» **Color Correction:** Basically, this is saturation. I reduced the standard value from +20 to +10 to offset any unwanted color shifts and saturation that changing the exposure introduced.

» **Midtone Contrast:** Set this to refine the image's middle values. I reduced the midtone contrast to even out the exposure.

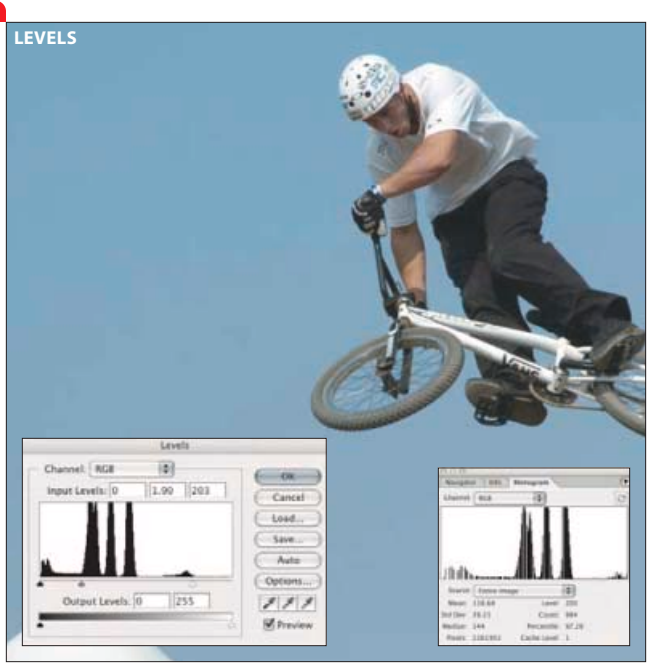
I may have achieved similar results with Levels or Curves if I'd had more time to make tone-based masks and paint selective corrections. Since the intelligence of Shadow/Highlight to differentiate adjacent tonal values was so well implemented, I could concentrate on improving the image without laboring over complex contrast masks or tweaking controls.

» **The Adobe default settings of 50 for Shadows and 0 for Highlights are much too lopsided and aggressive for most images. To create custom defaults, open an image, choose Image > Adjustments > Shadow/Highlight, and set the Amount for Shadows and Highlights to 20. Click Show More Options and check Save as Defaults. Click OK and if need be, undo any image change. The next time you select Shadow/Highlight, these more delicate settings will be your starting point, and your image won't be hit with a sledgehammer.**

Katrin Eismann is the author of *Photoshop Restoration and Retouching* and *Real World Digital Photography*. For more information, please visit www.photoshopdiva.com, www.digitalretouch.org, and www.digitalphotobook.net.

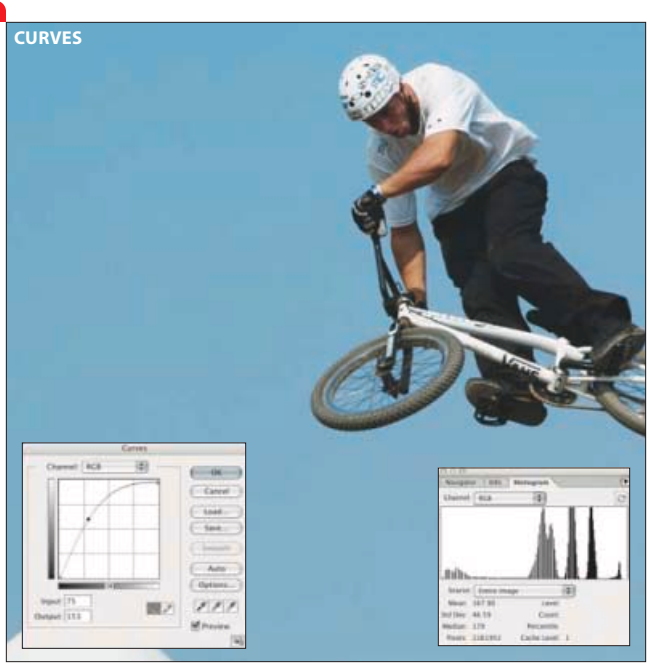
1

LEVELS



2

CURVES



3

SHADOW/HIGHLIGHT

BY WENDY CRUMPLER AND BARRY HAYNES

CHECK OUT THOSE CURVES!

You can accomplish almost anything with an adjustment layer and a layer mask, and the adjustment layer Wendy Crumpler and Barry Haynes use most is Curves. Using layer masks gives you flexibility for tweaking photos because you can change the adjustment, the mask, or the opacity of the adjustment layer itself. Here's three tips on using Curves adjustment layers with layer masks.

BRIGHTEN A PORTRAIT

A simple Curves adjustment can brighten a face quickly. In this image the eyes are a bit dull, there are some shadows under the eyes, and the teeth could be whiter.

a. Add a Curves adjustment layer and move the midpoint of the curve up. Make sure you only look at the areas you want to change as you adjust.
b. On the adjustment layer, press D to access the default colors.
c. Press Command-I (Invert) to fill the adjustment layer mask with black.
d. Press B for the brush tool, then choose a soft brush with 100% Opacity and 7% Flow. Paint the mask with white in the areas you want to brighten. We used the Airbrush here.

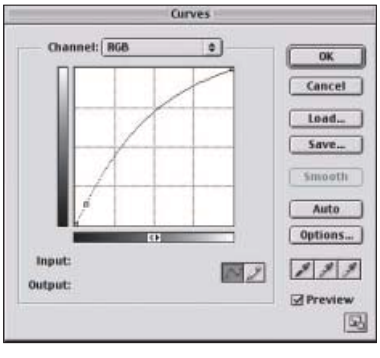
With a single curve, we cured a multitude of problems. This would not be appropriate for fine portraiture, but for a quick fix, it works well.

OPEN THE SHADOWS

The dummy is exposed correctly, but the man's face is in the shadow of his hat. While this could be a prospect for the new Photoshop CS Shadow/Highlight feature, you have more control over exactly what you lighten with a curve and a mask.

a. Add a Curves adjustment layer and while the curve is still onscreen, click and drag your mouse over the shadow areas in the image to determine where those values fall on the curve.
b. Click on the curve in the middle of the range to place a point. Now pull the curve up to bring those values in line with other skin tones in the picture.
c. Follow steps b-d in the first tip. Paint the adjustment layer mask with white where you need to open up shadows.

Notice the steep curve we built to pull detail from the face and increase brightness and contrast. This curve would be inappropriate to use on the overall picture, but a mask filled with black lets you brush only the areas you need. I painted part of the hat, glasses, and face, but skipped face areas not in the shadows.



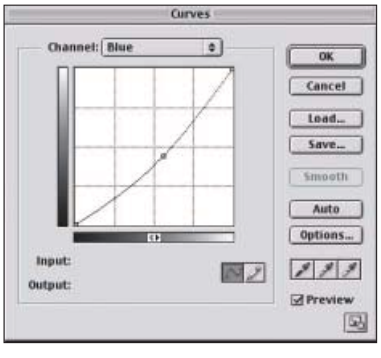
WARM A SELECTION

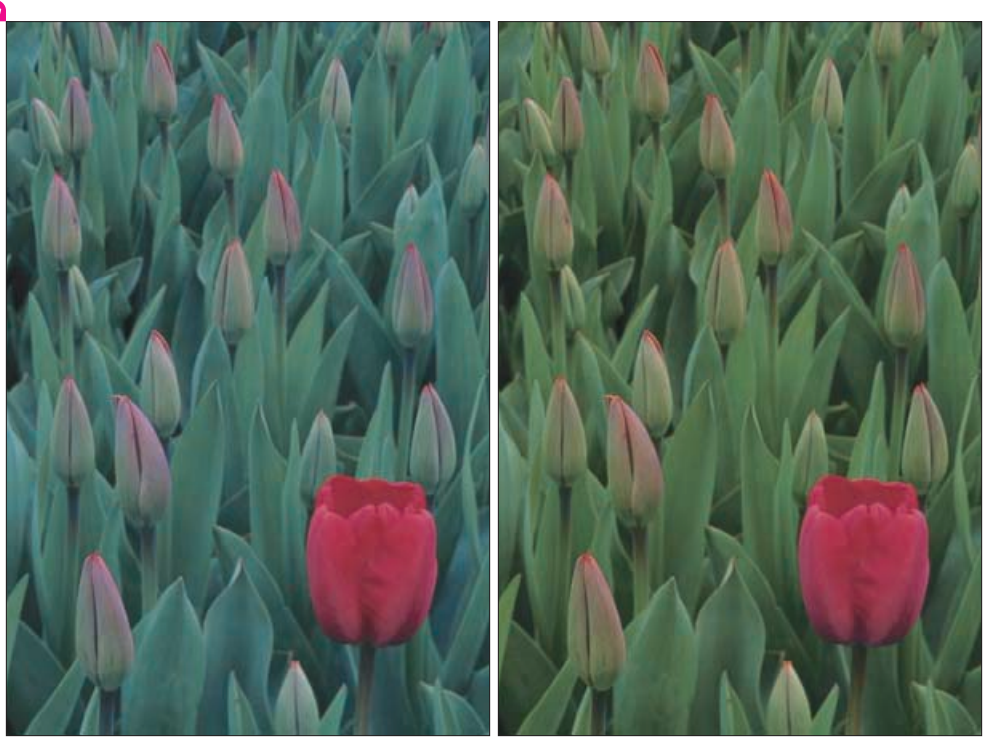
In this tulip field, we wanted to warm the leaves and protect the opened flower. You could make several Hue/Saturation adjustments, but in this case, one curve will do. Making the selection first saves you from having to paint the entire mask.

a. Make a loose selection with the lasso tool. Choose Select > Inverse.
b. Add a Curves adjustment layer and use the pull-down menu to switch to the Blue channel. Pull the curve down to add yellow.
c. Use a soft-edge brush to finesse your mask if need be. Paint with white where you want the adjustment, black where you want the original colors.

In this image, adding yellow to the leaves and the closed tulips warmed the colors, making the leaves greener and the flower tips redder.

Wendy Crumpler and Barry Haynes are the authors of *Photoshop CS Artistry*, the seventh edition of their highly acclaimed book. They teach workshops on Photoshop and Painter in their Oregon studio.





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